

**United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101**

Date: FEB 25 2014
Subject: Transmittal of Sample Analysis Results for ASR #: 6348

Project ID: ARB780

Project Description: Heartland Plating - Removal Assessment sampling

From: Michael F. Davis, Chief *MFD* *2/26/14*
Chemical Analysis and Response Branch, Environmental Services Division

To: Adam Ruiz
SUPR/ERNB

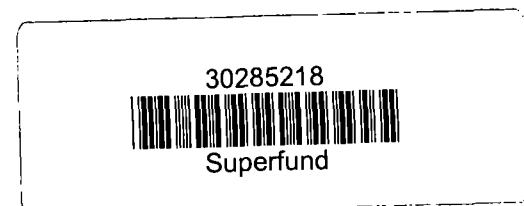
Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.



Project Manager: Adam Ruiz**Org:** SUPR/ERNB**Phone:** 913-551-7926**Project ID:** ARB780**Project Desc:** Heartland Plating - Removal Assessment sampling**Location:** Bettendorf**State:** Iowa**Program:** Superfund**Site Name:** Heartland Plating - Site Evaluation/Disposition**Site ID:** B780 **Site OU:** 00**Purpose:** Site Cleanup Support**GPRA PRC:** 303DC6

Waste sampling at an abandoned plating facility.

Per THankins 1/8/2014: EPA ID number for the above site is: IAN000702275.

Explanation of Codes, Units and Qualifiers used on this report**Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.**Units:** Specific units in which results are reported. = Field Sample

mg/L = Milligrams per Liter

ug/L = Micrograms per Liter

SU = Standard Units (pH)

Deg C = Degrees Celsius

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

L = The identification of the analyte is acceptable; the reported value may be biased low. The actual value is expected to be greater than the reported value.

J = The identification of the analyte is acceptable; the reported value is an estimate.

U = The analyte was not detected at or above the reporting limit.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 6348**Sample Information Summary****02/25/2014****Project ID:** ARB780**Project Desc:** Heartland Plating - Removal Assessment sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
101 - __		Waste	Sample collected from VAT #28		01/15/2014	10:15			01/16/2014
102 - __		Waste	Sample collected from VAT #6		01/15/2014	10:20			01/16/2014
103 - __		Waste	Sample collected from Drum Z-56		01/15/2014	10:25			01/16/2014
104 - __		Waste	Sample collected from Drum Z-105		01/15/2014	10:30			01/16/2014
105 - __		Waste	Sample collected from Drum #TH055		01/15/2014	10:35			01/16/2014
106 - __		Waste	Sample collected from Drum Z-26		01/15/2014	10:40			01/16/2014
107 - __		Waste	Sample collected from Drum #0015		01/15/2014	10:45			01/16/2014
108 - __		Waste	Sample collected from Bucket #Z-173		01/15/2014	10:50			01/16/2014
109 - __		Waste	Sample collected from Keg Z-152		01/15/2014	10:55			01/16/2014
110 - __		Waste	Sample collected from Bucket Z-138		01/15/2014	11:00			01/16/2014
111 - __		Waste	Sample collected from Bucket Z-185		01/15/2014	11:05			01/16/2014
112 - __		Waste	Sample collected from Bucket Z-159		01/15/2014	11:10			01/16/2014

Analysis Comments About Results For This Analysis**1 Flashpoint of Hazardous Samples****Lab:** Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3172.2E**Samples:** 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
 108-__ 109-__ 110-__ 111-__ 112-__**Comments:**

Flashpoint was L-coded in samples 101, 101-LD, 102-110, 110-LD, and 111-112. The flashpoint of these samples were not observed within the range tested. The final results are accompanied by an L-code to indicate that the actual value is greater than the reported values.

1 Metals in Liquid Waste by ICP-AES**Lab:** Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Samples:** 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
 108-__ 109-__ 110-__ 111-__ 112-__**Comments:**

All samples have elevated reporting limits due to the CLP laboratory using initial volume of 25 mL for digestion and final volume of 50 mL due to bad sample matrices.

Cadmium in samples -101, -103, and -105 through -112 and silver in samples -101 through -103 and -105 through -112 were UJ-coded. These analytes were not found in the samples at or above the reporting limits, however, the reporting limits are an estimate (UJ-coded) due to negative recoveries of these analytes in the interference check samples (ICS) which were not present in the ICS solution but whose absolute values were greater than the method detection limits (MDL), therefore, a possibility of false negatives exists. The actual reporting limits may be higher than the reported values.

Barium, cadmium, selenium, and silver were UJ-coded in sample -101. These analytes were not found in the sample at or above the reporting limits, however, the reporting limits are an estimate (UJ-coded) due to low recoveries of these analytes (Ba: 73%, Cd: 0%, Se: 0%, and Ag: 0%) in the laboratory matrix spike. The actual reporting limits for these analytes may be higher than the reported values.

1 Pesticides in Water by GC/EC**Lab:** Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Samples:** 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
 108-__ 109-__ 110-__ 111-__ 112-__**Comments:**

These samples were hazardous liquid waste matrix with the PCB results were reported in ug/L, however, no corresponding analyses in LIMS exists. Therefore, these samples were redefined as cross-matrix samples and reported as pesticides in water with only PCBs

Analysis Comments About Results For This Analysis

reported.

All samples have elevated reporting limits due to the CLP laboratory used an initial volume of 100 mL for extraction and final volume 10 mL as waste dilution due to sample matrices.

1 pH of Hazardous Sample

Lab: Region 7 ESAT Contract Lab (In-House)

Method: EPA Region 7 RLAB Method 3135.5F

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
 108-__ 109-__ 110-__ 111-__ 112-__

Comments:

Samples 101-112 were analyzed one day past their 24 hour holding time and were reported with a J-code.

pH was J-coded in sample 112 due to the reported value exceeding the calibrated range of the instrument (13.43 vs. 13.00).

pH was J-coded in samples 102 and 107-110 due to the reported value being below the calibrated range of the instrument (-2.00 to 0.65 vs 1.00).

1 TCLP Metals in Haz. Waste

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
 108-__ 109-__ 110-__ 111-__ 112-__

Comments:

All samples have elevated reporting limits due to the CLP laboratory using initial volume of 25 mL for digestion and final volume of 50 mL due to bad sample matrices.

Cadmium in samples -101, -103, and -105 through -112 and silver in samples -101 through -103 and -105 through -112 were UJ-coded. These analytes were not found in the samples at or above the reporting limits, however, the reporting limits are an estimate (UJ-coded) due to negative recoveries of these analytes in the interference check samples (ICS) which were not present in the ICS solution but whose absolute values were greater than the method detection limits (MDL), therefore, a possibility of false negatives exists. The actual reporting limits may be higher than the reported values.

Arsenic, barium, cadmium, selenium, and silver were UJ-coded in sample -101. These analytes were not found in the sample at or above the reporting limits, however, the reporting limits are an estimate (UJ-coded) due to low recoveries of these analytes (As: 54%, Ba: 54%, Cd: 0%, Se: 0%, and Ag: 0%) in the laboratory matrix spike. The actual reporting limits for these analytes may be higher than the reported values.

1 TCLP VOCs in Hazardous by GC/MS

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

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RLAB Approved Analysis Comments

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Analysis	Comments About Results For This Analysis
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Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
108-__ 109-__ 110-__ 111-__ 112-__

Comments:

All samples have elevated reporting limits due to the CLP laboratory analyzed all samples with high dilution factor (5-50X) as a first analysis due to bad sample matrices.

1,1-dichloroethene was UJ-coded in sample -101. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte (1,1-dichloroethene: 60% vs 61-145%) in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

1 VOCs in Liquid Hazardous Matrices by GC/MS

Lab: Region 7 ESAT Contract Lab (In-House)

Method: EPA Region 7 RLAB Method 3230.17D as applied to Liquid Waste

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
108-__ 109-__ 110-__ 111-__ 112-__

Comments:

Acetone was UJ-coded in samples 101-112. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for this analyte may be higher than the reported value.

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Analysis/ Analyte	Units	101-	102-	103-	104-
1 Flashpoint of Hazardous Samples					
Flashpoint	Deg C	60.6 L	60.6 L	60.6 L	60.6 L
1 Metals in Liquid Waste by ICP-AES					
Arsenic	mg/L	0.500 UJ	0.500 U	0.0200 U	0.325
Barium	mg/L	10.0 UJ	10.0 U	0.400 U	0.400 U
Cadmium	mg/L	0.250 UJ	1.60	0.0100 UJ	0.0641
Chromium	mg/L	0.500 U	5.34	0.0251	0.230
Lead	mg/L	6.42	6.13	0.0200 U	0.676
Selenium	mg/L	1.75 UJ	1.75 U	0.0743	1.92
Silver	mg/L	0.500 UJ	0.500 UJ	0.0200 UJ	1.02
1 Pesticides in Water by GC/EC					
Aroclor 1016	ug/L	10 U	10 U	10 U	10 U
Aroclor 1221	ug/L	10 U	10 U	10 U	10 U
Aroclor 1232	ug/L	10 U	10 U	10 U	10 U
Aroclor 1242	ug/L	10 U	10 U	10 U	10 U
Aroclor 1248	ug/L	10 U	10 U	10 U	10 U
Aroclor 1254	ug/L	10 U	10 U	10 U	10 U
Aroclor 1260	ug/L	10 U	10 U	10 U	10 U
1 pH of Hazardous Sample					
pH	SU	5.23 J	-0.26 J	9.61 J	5.97 J
1 TCLP Metals in Haz. Wäste					
Arsenic	mg/L	0.500 UJ	0.500 U	0.0206	0.297
Barium	mg/L	10.0 UJ	10.0 U	0.400 U	0.400 U
Cadmium	mg/L	0.250 UJ	1.27	0.0100 UJ	0.0648
Chromium	mg/L	0.500 U	4.29	0.0200 U	0.126
Lead	mg/L	7.26	4.94	0.0200 U	0.266
Selenium	mg/L	1.75 UJ	1.75 U	0.0768	1.70
Silver	mg/L	0.500 UJ	0.500 UJ	0.0200 UJ	1.03
1 TCLP VOCs in Hazardous by GC/MS					
Benzene	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
2-Butanone	mg/L	0.050 U	0.050 U	0.050 U	0.50 U
Carbon Tetrachloride	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
Chlorobenzene	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
Chloroform	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
1,2-Dichloroethane	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
1,1-Dichloroethene	mg/L	0.025 UJ	0.025 U	0.025 U	0.25 U
Tetrachloroethene	mg/L	0.025 U	0.025 U	0.025 U	0.28
Trichloroethene	mg/L	0.025 U	0.025 U	0.025 U	0.58
Vinyl Chloride	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
1 VOCs in Liquid Hazardous Matrices by GC/MS					
Acetone	ug/L	50000 UJ	50000 UJ	50000 UJ	50000 UJ
Benzene	ug/L	50000 U	50000 U	50000 U	50000 U
Bromodichloromethane	ug/L	50000 U	50000 U	50000 U	50000 U
Bromoform	ug/L	50000 U	50000 U	50000 U	50000 U
Bromomethane	ug/L	50000 U	50000 U	50000 U	50000 U
2-Butanone	ug/L	50000 U	50000 U	50000 U	50000 U

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Analysis/ Analyte	Units	101-	102-	103-	104-
Carbon Disulfide	ug/L	50000 U	50000 U	50000 U	50000 U
Carbon Tetrachloride	ug/L	50000 U	50000 U	50000 U	50000 U
Chlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
Chloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Chloroform	ug/L	50000 U	50000 U	50000 U	50000 U
Chloromethane	ug/L	50000 U	50000 U	50000 U	50000 U
Cyclohexane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dibromo-3-Chloropropane	ug/L	50000 U	50000 U	50000 U	50000 U
Dibromochloromethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dibromoethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,3-Dichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,4-Dichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
Dichlorodifluoromethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1-Dichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1-Dichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
cis-1,2-Dichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
trans-1,2-Dichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dichloropropane	ug/L	50000 U	50000 U	50000 U	50000 U
cis-1,3-Dichloropropene	ug/L	50000 U	50000 U	50000 U	50000 U
trans-1,3-Dichloropropene	ug/L	50000 U	50000 U	50000 U	50000 U
Ethyl Benzene	ug/L	50000 U	50000 U	50000 U	100000
2-Hexanone	ug/L	50000 U	50000 U	50000 U	50000 U
Isopropylbenzene	ug/L	50000 U	50000 U	50000 U	50000 U
Methyl Acetate	ug/L	50000 U	90000	50000 U	50000 U
Methyl tert-butyl ether	ug/L	100000 U	100000 U	100000 U	100000 U
Methylcyclohexane	ug/L	50000 U	50000 U	50000 U	50000 U
Methylene Chloride	ug/L	50000 U	50000 U	50000 U	56000
4-Methyl-2-Pentanone	ug/L	50000 U	50000 U	50000 U	50000 U
Naphthalene	ug/L	100000 U	100000 U	100000 U	15000000
Styrene	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,2,2-Tetrachloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Tetrachloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
Toluene	ug/L	50000 U	50000 U	50000 U	50000 U
1,2,3-Trichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,2,4-Trichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,1-Trichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,2-Trichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Trichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
Trichlorofluoromethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,2-Trichlorotrifluoroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Vinyl Chloride	ug/L	50000 U	50000 U	50000 U	50000 U
m and/or p-Xylene	ug/L	100000 U	100000 U	100000 U	340000
o-Xylene	ug/L	50000 U	50000 U	50000 U	58000

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Analysis/ Analyte	Units	105-	106-	107-	108-
1 Flashpoint of Hazardous Samples					
Flashpoint	Deg C	60.6 L	60.6 L	60.6 L	60.6 L
1 Metals in Liquid Waste by ICP-AES					
Arsenic	mg/L	0.0200 U	0.0372	0.0200 U	0.500 U
Barium	mg/L	0.400 U	0.400 U	0.400 U	10.0 U
Cadmium	mg/L	0.0100 UJ	0.0100 UJ	0.0100 UJ	0.250 UJ
Chromium	mg/L	1.01	0.322	2.34	4500
Lead	mg/L	0.0573	0.0200 U	0.143	0.500 U
Selenium	mg/L	0.0700 U	1.07	0.0700 U	1.75 U
Silver	mg/L	0.0200 UJ	0.0200 UJ	0.0200 UJ	0.500 UJ
1 Pesticides in Water by GC/EC					
Aroclor 1016	ug/L	10 U	10 U	10 U	10 U
Aroclor 1221	ug/L	10 U	10 U	10 U	10 U
Aroclor 1232	ug/L	10 U	10 U	10 U	10 U
Aroclor 1242	ug/L	10 U	10 U	10 U	10 U
Aroclor 1248	ug/L	10 U	10 U	10 U	10 U
Aroclor 1254	ug/L	10 U	10 U	10 U	10 U
Aroclor 1260	ug/L	10 U	10 U	10 U	10 U
1 pH of Hazardous Sample					
pH	SU	2.07 J	-2.00 J	-0.32 J	0.65 J
1 TCLP Metals in Haz. Waste					
Arsenic	mg/L	0.0200 U	0.0330	0.500 U	0.500 U
Barium	mg/L	0.400 U	0.486	10.0 U	10.0 U
Cadmium	mg/L	0.0100 UJ	0.0100 UJ	0.250 UJ	0.250 UJ
Chromium	mg/L	0.641	0.323	2.65	3930
Lead	mg/L	0.0355	0.0200 U	0.500 U	0.500 U
Selenium	mg/L	0.0700 U	1.10	1.75 U	1.75 U
Silver	mg/L	0.0200 UJ	0.0200 UJ	0.500 UJ	0.500 UJ
1 TCLP VOCs in Hazardous by GC/MS					
Benzene	mg/L	0.025 U	0.025 U	0.025 U	0.025 U
2-Butanone	mg/L	0.050 U	0.050 U	0.050 U	0.050 U
Carbon Tetrachloride	mg/L	0.025 U	0.025 U	0.025 U	0.025 U
Chlorobenzene	mg/L	0.025 U	0.025 U	0.025 U	0.025 U
Chloroform	mg/L	0.025 U	0.025 U	0.025 U	0.025 U
1,2-Dichloroethane	mg/L	0.025 U	0.025 U	0.025 U	0.025 U
1,1-Dichloroethene	mg/L	0.025 U	0.025 U	0.025 U	0.025 U
Tetrachloroethene	mg/L	0.025 U	0.025 U	0.025 U	0.025 U
Trichloroethene	mg/L	0.025 U	0.025 U	0.025 U	0.025 U
Vinyl Chloride	mg/L	0.025 U	0.025 U	0.025 U	0.025 U
1 VOCs in Liquid Hazardous Matrices by GC/MS					
Acetone	ug/L	50000 UJ	50000 UJ	50000 UJ	50000 UJ
Benzene	ug/L	50000 U	50000 U	50000 U	50000 U
Bromodichloromethane	ug/L	50000 U	50000 U	50000 U	50000 U
Bromoform	ug/L	50000 U	50000 U	50000 U	50000 U
Bromomethane	ug/L	50000 U	50000 U	50000 U	50000 U
2-Butanone	ug/L	50000 U	50000 U	50000 U	50000 U

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Analysis/ Analyte	Units	105- __	106- __	107- __	108- __
Carbon Disulfide	ug/L	50000 U	50000 U	50000 U	50000 U
Carbon Tetrachloride	ug/L	50000 U	50000 U	50000 U	50000 U
Chlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
Chloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Chloroform	ug/L	50000 U	50000 U	50000 U	50000 U
Chloromethane	ug/L	50000 U	50000 U	50000 U	50000 U
Cyclohexane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dibromo-3-Chloropropane	ug/L	50000 U	50000 U	50000 U	50000 U
Dibromochloromethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dibromoethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,3-Dichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,4-Dichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
Dichlorodifluoromethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1-Dichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1-Dichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
cis-1,2-Dichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
trans-1,2-Dichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dichloropropane	ug/L	50000 U	50000 U	50000 U	50000 U
cis-1,3-Dichloropropene	ug/L	50000 U	50000 U	50000 U	50000 U
trans-1,3-Dichloropropene	ug/L	50000 U	50000 U	50000 U	50000 U
Ethyl Benzene	ug/L	50000 U	50000 U	50000 U	50000 U
2-Hexanone	ug/L	50000 U	50000 U	50000 U	50000 U
Isopropylbenzene	ug/L	50000 U	50000 U	50000 U	50000 U
Methyl Acetate	ug/L	50000 U	50000 U	50000 U	50000 U
Methyl tert-butyl ether	ug/L	100000 U	100000 U	100000 U	100000 U
Methylcyclohexane	ug/L	50000 U	50000 U	50000 U	50000 U
Methylene Chloride	ug/L	50000 U	50000 U	50000 U	50000 U
4-Methyl-2-Pentanone	ug/L	50000 U	50000 U	50000 U	50000 U
Naphthalene	ug/L	100000 U	100000 U	100000 U	100000 U
Styrene	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,2,2-Tetrachloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Tetrachloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
Toluene	ug/L	50000 U	50000 U	50000 U	50000 U
1,2,3-Trichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,2,4-Trichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,1-Trichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,2-Trichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Trichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
Trichlorofluoromethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,2-Trichlorotrifluoroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Vinyl Chloride	ug/L	50000 U	50000 U	50000 U	50000 U
m and/or p-Xylene	ug/L	100000 U	100000 U	100000 U	100000 U
o-Xylene	ug/L	50000 U	50000 U	50000 U	50000 U

ASR Number: 6348**RLAB Approved Sample Analysis Results****02/25/2014****Project ID:** ARB780**Project Desc:** Heartland Plating - Removal Assessment sampling

Analysis/ Analyte	Units	109-	110-	111-	112-
1 Flashpoint of Hazardous Samples					
Flashpoint	Deg C	60.6 L	60.6 L	60.6 L	60.6 L
1 Metals in Liquid Waste by ICP-AES					
Arsenic	mg/L	0.0200 U	0.0200 U	0.500 U	0.500 U
Barium	mg/L	0.400 U	0.400 U	10.0 U	10.0 U
Cadmium	mg/L	0.0100 UJ	0.0100 UJ	0.250 UJ	0.250 UJ
Chromium	mg/L	58.4	1.04	0.500 U	0.500 U
Lead	mg/L	0.162	0.0200 U	0.500 U	0.500 U
Selenium	mg/L	0.0700 U	0.0700 U	5470	1.75 U
Silver	mg/L	0.0200 UJ	0.0200 UJ	0.500 UJ	0.500 UJ
1 Pesticides in Water by GC/EC					
Aroclor 1016	ug/L	10 U	10 U	10 U	10 U
Aroclor 1221	ug/L	10 U	10 U	10 U	10 U
Aroclor 1232	ug/L	10 U	10 U	10 U	10 U
Aroclor 1242	ug/L	10 U	10 U	10 U	10 U
Aroclor 1248	ug/L	10 U	10 U	10 U	10 U
Aroclor 1254	ug/L	10 U	10 U	10 U	10 U
Aroclor 1260	ug/L	10 U	10 U	10 U	10 U
1 pH of Hazardous Sample					
pH	SU	-1.15 J	0.15 J	1.13 J	13.43 J
1 TCLP Metals in Haz. Waste					
Arsenic	mg/L	0.0205	0.0200 U	0.500 U	0.500 U
Barium	mg/L	0.400 U	0.400 U	10.0 U	10.0 U
Cadmium	mg/L	0.0100 UJ	0.0100 UJ	0.250 UJ	0.250 UJ
Chromium	mg/L	72.5	1.15	0.500 U	0.500 U
Lead	mg/L	0.175	0.0200 U	0.500 U	0.500 U
Selenium	mg/L	0.0700 U	0.0700 U	4350	1.75 U
Silver	mg/L	0.0200 UJ	0.0200 UJ	0.500 UJ	0.500 UJ
1 TCLP VOCs in Hazardous by GC/MS					
Benzene	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
2-Butanone	mg/L	0.050 U	0.050 U	0.050 U	0.50 U
Carbon Tetrachloride	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
Chlorobenzene	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
Chloroform	mg/L	0.025 U	0.025 U	0.025 U	2.1
1,2-Dichloroethane	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
1,1-Dichloroethene	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
Tetrachloroethene	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
Trichloroethene	mg/L	0.025 U	0.025 U	0.025 U	0.31
Vinyl Chloride	mg/L	0.025 U	0.025 U	0.025 U	0.25 U
1 VOCs in Liquid Hazardous Matrices by GC/MS					
Acetone	ug/L	50000 UJ	50000 UJ	50000 UJ	50000 UJ
Benzene	ug/L	50000 U	50000 U	50000 U	50000 U
Bromodichloromethane	ug/L	50000 U	50000 U	50000 U	50000 U
Bromoform	ug/L	50000 U	50000 U	50000 U	50000 U
Bromomethane	ug/L	50000 U	50000 U	50000 U	50000 U
2-Butanone	ug/L	50000 U	50000 U	50000 U	50000 U

ASR Number: 6348

RLAB Approved Sample Analysis Results

02/25/2014

Project ID: ARB780

Project Desc: Heartland Plating - Removal Assessment sampling

Analysis/ Analyte	Units	109-	110-	111-	112-
Carbon Disulfide	ug/L	50000 U	50000 U	50000 U	50000 U
Carbon Tetrachloride	ug/L	50000 U	50000 U	50000 U	50000 U
Chlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
Chloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Chloroform	ug/L	50000 U	50000 U	50000 U	50000 U
Chloromethane	ug/L	50000 U	50000 U	50000 U	50000 U
Cyclohexane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dibromo-3-Chloropropane	ug/L	50000 U	50000 U	50000 U	50000 U
Dibromochloromethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dibromoethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,3-Dichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,4-Dichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
Dichlorodifluoromethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1-Dichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1-Dichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
cis-1,2-Dichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
trans-1,2-Dichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
1,2-Dichloropropane	ug/L	50000 U	50000 U	50000 U	50000 U
cis-1,3-Dichloropropene	ug/L	50000 U	50000 U	50000 U	50000 U
trans-1,3-Dichloropropene	ug/L	50000 U	50000 U	50000 U	50000 U
Ethyl Benzene	ug/L	50000 U	50000 U	50000 U	50000 U
2-Hexanone	ug/L	50000 U	50000 U	50000 U	50000 U
Isopropylbenzene	ug/L	50000 U	50000 U	50000 U	50000 U
Methyl Acetate	ug/L	50000 U	60000	50000 U	50000 U
Methyl tert-butyl ether	ug/L	100000 U	100000 U	100000 U	100000 U
Methylcyclohexane	ug/L	50000 U	50000 U	50000 U	50000 U
Methylene Chloride	ug/L	50000 U	50000 U	50000 U	50000 U
4-Methyl-2-Pentanone	ug/L	50000 U	50000 U	50000 U	50000 U
Naphthalene	ug/L	100000 U	100000 U	100000 U	100000 U
Styrene	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,2,2-Tetrachloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Tetrachloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
Toluene	ug/L	50000 U	50000 U	50000 U	50000 U
1,2,3-Trichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,2,4-Trichlorobenzene	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,1-Trichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,2-Trichloroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Trichloroethene	ug/L	50000 U	50000 U	50000 U	50000 U
Trichlorofluoromethane	ug/L	50000 U	50000 U	50000 U	50000 U
1,1,2-Trichlorotrifluoroethane	ug/L	50000 U	50000 U	50000 U	50000 U
Vinyl Chloride	ug/L	50000 U	50000 U	50000 U	50000 U
m and/or p-Xylene	ug/L	100000 U	100000 U	100000 U	100000 U
o-Xylene	ug/L	50000 U	50000 U	50000 U	50000 U

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print) Adam Ruiz	NAME OF SURVEY OR ACTIVITY Heartland Plating	DATE OF COLLECTION 15 01 2014	SHEET 1 of 1
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CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS				SAMPLED MEDIA				RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)	
	CUSTODIAN	BOTTLE	BOTTLE	8oz Jars	VOA SET (2 VIALS EA)	water	soil	sediment	dust	
6348-101	2			4	4	X				1/16/14 MSD (2) VDA set of 6
-102				4	4	X				
-103				4	4	X				
-104				4	2	X				
-105				4	2	X				
-106				4	2	X	Potential Sulfuric Acid			
-107				4	2	X				
-108				4	2	X				
-109				4	2	X	Potential fuming Nitric Acid			
-110				4	2	X				
-111				4	2	X				
-112				4	2	X				
<i>*At least 1 vial had an bubble in them.</i>										
<i>1/16/14</i>										
<i>TSC</i>										
<i>1/16/2014</i>										
<i>ASPC complete</i>										
<i>When Clrs opened, RCC noticed Cherry solvent odor. Clr Clrys. Red but D-1 - 1/16/14</i>										

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
32 PIECE(S) CONSISTING OF _____ BOX(ES)	<input type="checkbox"/> COMMERCIAL CARRIER: <input type="checkbox"/> COURIER <input checked="" type="checkbox"/> SAMPLER CONVEYED
2 ICE CHEST(S); OTHER _____	(SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD				
RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<i>TSC</i>	1/16/14	10:30	<i>RW Wiggin</i>	<i>Rec'd at lab</i>
<input type="checkbox"/> SEALED	<input checked="" type="checkbox"/> UNSEALED		<input type="checkbox"/> SEALED <input checked="" type="checkbox"/> UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED	<input checked="" type="checkbox"/> UNSEALED		<input type="checkbox"/> SEALED <input checked="" type="checkbox"/> UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED	<input checked="" type="checkbox"/> UNSEALED		<input type="checkbox"/> SEALED <input checked="" type="checkbox"/> UNSEALED	

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 6348 Sample Number: 101 QC Code: _____ Matrix: Waste Tag ID: 6348-101-_____

Project ID: ARB780 Project Manager: Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition Site ID: B780 Site OU: 00

Location Desc: Liquid waste sample

External Sample Number: 001

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 1/15/2014 10:15
Longitude: _____ End: _____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
6 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
6 - 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Water (PCBs only) per Bevan
1 - 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flashpoint
1 - 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples

Sample Comments:

(N/A)

MS/MSD

Sample collected from VAT # 28

No Hg or PCBs
Hg for this entire
MSD per AB 1/24/14
~1/16/14

Sample Collected By: TT

Sample Collection Field Sheet

**US EPA Region 7
Kansas City, KS**

ASR Number: 6348 **Sample Number:** 102 **QC Code:** _____ **Matrix:** Waste **Tag ID:** 6348-102-_____

Project ID: ARB780 **Project Manager:** Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition **Site ID:** B780 **Site OU:** 00

Location Desc: Liquid waste sample

External Sample Number: 002

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____

Latitude: _____ **Sample Collection: Start:** 1/15/2014 **10:20**

Longitude: _____ **End:** _____ : _____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Hazardous by GC/EC <i>(PCBs only) per Bernd 2/24/14</i>
1 - 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flashpoint
1 - 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples.

Sample Comments:

(N/A)

Sample collected from VAT #4

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 6348 **Sample Number:** 103 **QC Code:** _____ **Matrix:** Waste **Tag ID:** 6348-103-_____

Project ID: ARB780 **Project Manager:** Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition **Site ID:** B780 **Site OU:** 00

Location Desc: Liquid waste sample

External Sample Number: 003

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: _____ **Sample Collection: Start:** 1/15/2014 **ID:** 25
Longitude: _____ **End:** 1/15/2014 **:
:**

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Hazardous by GC/EC (PCBs only) per BORR 2/26/14
1 - 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flashpoint
1 - 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples

Sample Comments:

(N/A)

Sample collected from drum Z-510

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 6348 Sample Number: 104 QC Code: _____ Matrix: Waste Tag ID: 6348-104-_____

Project ID: ARB780 Project Manager: Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition Site ID: B780 Site OU: 00

Location Desc: Liquid waste sample

External Sample Number: 004

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____ Sample Collection: Start: 1/15/2014 10:30
Longitude: _____ End: :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 ~ 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 ~ 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 ~ 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 ~ 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 ~ 8 oz glass	4 Deg C	14 Days	1 <i>Reactive in Water</i> PCBs in Hazardous by GC/EC (PCBs only) per B Evans 2/24/14
1 ~ 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flashpoint
1 ~ 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples

Sample Comments:

(N/A)

Sample collected from drum Z-105

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 6348 **Sample Number:** 105 **QC Code:** _____ **Matrix:** Waste **Tag ID:** 6348-105-_____

Project ID: ARB780 **Project Manager:** Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition **Site ID:** B780 **Site OU:** 00

Location Desc: Liquid waste sample

External Sample Number: 005

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____

Latitude: ____ **Longitude:** ____ **Sample Collection:** Start: 01/15/14 10:35
End:

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Hazardous by GC/EC <i>(PCBs only) per Beano</i>
1 - 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flashpoint
1 - 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples

Sample Comments:

(N/A)

Sample collected from drum # TH055

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 6348 **Sample Number:** 106 **QC Code:** __ **Matrix:** Waste **Tag ID:** 6348-106-__

Project ID: ARB780 **Project Manager:** Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition **Site ID:** B780 **Site OU:** 00

Location Desc: Liquid waste sample

External Sample Number: 007

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____

Latitude: _____ **Sample Collection: Start:** 1/15/2014 **10:40**

Longitude: _____ **End:** _____ : _____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Hazardous by GC/EC (PCBs only) per Bonsai
1 - 8 oz glass	None	0 Days	1 pH of Hazardous Sample + flashpoint 2/24/14
1 - 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples

Sample Comments:

(N/A)

Sample collected from drum Z-26

Sample Collected By: TT

Sample Collection Field Sheet

**US EPA Region 7
Kansas City, KS**

ASR Number: 6348 **Sample Number:** 107 **QC Code:** _____ **Matrix:** Waste **Tag ID:** 6348-107-_____

Project ID: ARB780 **Project Manager:** Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition **Site ID:** B780 **Site OU:** 00

Location Desc: Liquid waste sample

External Sample Number: DD 9

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: _____ **Sample Collection: Start:** 1/15/2014 **End:** 10:45

Longitude: _____ **End:** _____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Water PCBs in Hazardous by GC/EC <i>(PCBs only) per BERRANO</i>
1 - 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flashpoint
1 - 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples

Sample Comments:

(N/A)

Sample collected from drum #0015

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 6348 Sample Number: 108 QC Code: _____ Matrix: Waste Tag ID: 6348-108-_____

Project ID: ARB780 Project Manager: Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition Site ID: B780 Site OU: 00

Location Desc: Liquid waste sample

External Sample Number: 010

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 1/15/2014 10:50
Longitude: _____ End: _____ :_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 ~ 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 ~ 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 ~ 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 ~ 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 ~ 8 oz glass	4 Deg C	14 Days	1 PCBs in PCBs in Hazardous by GC/EC (PCBs only) per BELANO 2/24/14
1 ~ 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flashpoint
1 ~ 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples

Sample Comments:

(N/A)

Sample collected from bucket Z-173

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 6348 Sample Number: 109 QC Code: _____ Matrix: Waste Tag ID: 6348-109-_____

Project ID: ARB780 Project Manager: Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition Site ID: B780 Site OU: 00

Location Desc: Liquid waste sample

External Sample Number: 011

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____ Sample Collection: Start: 1/15/2013 10:55
Longitude: _____ End: _____ :_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 - 8 oz glass	4 Deg C	14 Days	1 pesticide residue PCBs in Hazardous by GC/EC (PCBs only) per B20ans 2/24/14
1 - 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flashpoint
1 - 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples

Sample Comments:

(N/A)

Sample collected from Keg Z-152

Sample Collected By: TT

Sample Collection Field Sheet

**US EPA Region 7
Kansas City, KS**

ASR Number: 6348 **Sample Number:** 110 **QC Code:** _____ **Matrix:** Waste **Tag ID:** 6348-110-_____

Project ID: ARB780 **Project Manager:** Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
 City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition **Site ID:** B780 **Site OU:** 00

Location Desc: Liquid waste sample

External Sample Number: D12

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: _____ **Sample Collection: Start:** 1/15/2014 11:00

Longitude: _____ **End:** _____ : _____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP, Metals in Haz. Waste
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Hazardous by GC/EC
1 - 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flashpoint
1 - 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples,

Sample Comments:

(N/A)

Sample collected from bucket Z-138

Sample Collected By: TPI

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 6348 Sample Number: 111 QC Code: _____ Matrix: Waste Tag ID: 6348-111-_____

Project ID: ARB780 **Project Manager:** Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition **Site ID:** B780 **Site OU:** 00

Location Desc: Liquid waste sample

External Sample Number: D14

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: _____		1/15/2014	11:05
Longitude: _____		End: _____	_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 - 8 oz glass	4 Deg C	14 Days	1 PCBs in Hazardous by GC/EC
1 - 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flashpoint
1 - 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples

PCBs in Water (PCBs Only) Please Return 2/24/14

Sample Comments:

(N/A)

Sample collected from bucket Z-185

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 6348 Sample Number: 112 QC Code: _____ Matrix: Waste Tag ID: 6348-112-_____

Project ID: ARB780 Project Manager: Adam Ruiz
Project Desc: Heartland Plating - Removal Assessment sampling
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Heartland Plating - Site Evaluation/Disposition Site ID: B780 Site OU: 00

Location Desc: Liquid waste sample

External Sample Number: 015

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 1/15/2014 11:10
Longitude: _____ End: _____ :_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 VOCs in Liquid Hazardous Matrices by GC/MS
2 - 40mL VOA vial	4 Deg C	14 Days	1 TCLP VOCs in Hazardous by GC/MS
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Liquid Waste by ICP-AES
1 - 8 oz glass	4 Deg C	180 Days	1 TCLP Metals in Haz. Waste
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in water PCBs in Hazardous by GC/EC (PCBs only) per Bureau 2/24/14
1 - 8 oz glass	None	0 Days	1 pH of Hazardous Sample + Flash point
1 - 8 oz glass	None	0 Days	1 Flashpoint of Hazardous Samples

Sample Comments:

(N/A)

Sample collected from bucket Z-159

Sample Collected By: TT